AMENDMENTS TO THE SPECIFICATION

Please amend the specification as follows.

Page 4, paragraph 9

In accordance with one embodiment of the present invention, an oscilloscope adapter for a portable electronic device, includes a module adapted to interface with a hardware interface port of a portable electronic device having a processor an a display. The module includes a computer program memory, and the memory stores computer program instructions thereon to direct the processor to perform the steps of: (1) collecting data representative of ~~an~~ a signal from an external source; and (2) displaying the data on the display as a waveform comprising individual data values as a function of time on a graph having a vertical axis and a horizontal axis, each axis having a scale.

Page 9, paragraph 31

FIG. 1 illustrates an exemplary embodiment of a portable electronic device that can be used with the present inventive adapter. Referring to FIG. 1, a portable electronic device 5 includes a module port 6 that may accept a module such as a plug-in module 2. At least one such electronic device is described on page 6-8 and the accompanying drawings in co-pending U.S. Patent Application Serial No. ~~09/702,450~~ 09/702,750, entitled "Plug-In Module for Portable Computing Device," which is hereby incorporated herein by reference.

Page 10, paragraph 32

Returning to FIG. 1, the portable electronic device preferably includes a hardware interface port 4 such as a 120-pin or 120-receptacle connector to provide an interface between the plug-in module and the electronic device. A rotateable door 3 is shown for covering the hardware interface 4. The adapter module 2 mates with the hardware interface [module] port [[6]] 4 of the electronic device via a hardware interface connector that is included with the adapter module. The adapter module 2 and/or the device 5 preferably includes a means to secure the module 2 to the device 5. For example, FIG. 1 illustrates that one or more latches 7 may be provided to secure the module 2 to the electronic device 5 during normal operation. Additionally, the module port 6 includes one or more extensions such as 8 and 13 that form grooves or notches such as 9 within the port.

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Page 10, paragraph 33

The electronic device illustrated in FIG. 1 is a portable engine analyzer, such as that which may be used to measure and analyze various aspects of the operation of a vehicle. However, the electronic device may in fact be any type of analyzer or other type of portable electronic or computing device such as a pocket PC or a personal digital assistant, a remote control, an electronic game, or any other portable electronic device. In the embodiment of an engine analyzer, the analyzer may serve to collect and analyze multiple aspects of an engine or vehicle, including aspects of the vehicle operations such as emissions components, system pressure, fluid pressure, system temperature, and other aspects or conditions. However, the analyzer or other electronic device may be equipped with additional functionality[, such as the

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ability to measure amps, vibration, or other aspects and display the measurements in graphic form, much as an oscilloscope].

Page 11, paragraph 34

FIG. 2 illustrates the internal components of an exemplary electronic device. Such components may interface with the module through the hardware interface port. Referring to FIG 2, a hardware interface connector of an exemplary oscilloscope adapter module 20 interfaces with a hardware interface port 22. Certain pins or receptacles on the hardware interface port 22 provide communication to and from a controller 24 via interface bus 26 within the portable electronic device. The hardware interface port 22 may also serve to communicate discrete input/output signals via interface bus 26 to the oscilloscope module through the hardware interface connector 20, and the oscilloscope module 20 may share input/output signals 28 and/or 30 with one or more field programmable gate array (FPGA) components within the electronic device such as 32 and/or 34. The device may also include a memory or buffer 36 that stores data collected by the device.

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Page 11, paragraph 35

To provide an oscilloscope adapter module for an electronic device, the module may include a computer program memory or other carrier, such as a floppy disc, a CD-ROM, a virtual memory, or a signal, containing computer program instructions that instruct the electronic apparatus to perform such functions. These instructions are preferably loaded into the electronic device when the oscilloscope application is selected. Optionally, the module may also provide processing hardware that can be used by the electronic device when performing such functions.

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Preferably, the module includes a custom-programmed [FGPA] FPGA or other circuitry to provide some or all processing functions, such as timing, sampling, and/or analog-to-digital converter functions. Such memory, circuitry, and/or processing hardware may be included in the module itself, or optionally the module may simply contain communications hardware that provides an interface between the hardware interface port of the portable electronic device and an external memory or processor.

Page 12, paragraph 37

FIG. 3 illustrates an exemplary embodiment of a setup screen 40 that may appear on the display of an electronic device when used with the present inventive oscilloscope adapter module. As illustrated in FIG. 3, the electronic device will be equipped with at least three inputs for an oscilloscope adapter module, or at least four inputs in an alternate embodiment comprising either a DMM adapter module or a combined oscilloscope/DMM adapter module. These inputs will collect data from the thing to be analyzed, such as an automobile engine, and deliver the data to the electronic device and/or the adapter module through corresponding input channels. These channels are identified on display screen 10 as 42, 22, 46, and 48. For an oscilloscope adapter module, the channels preferably correspond to typical oscilloscope inputs such as a primary waveform input 44, a secondary waveform input 46, and a synchronization input ~~48~~ 42. Data collected by each input as analog signals are converted, using analog-to-digital conversion circuitry located in either the electronic device or the adapter, to a digital format and displayed as a waveform on the display of the electronic device.